

SUBTERRANEA BRITANNICA

SECRETARY'S NEWSLETTER NO. 14

1995

WELCOME TO,

W. Bender Warwickshire
R.C.A. Wilson Sussex
P.A. Fields Essex
R. Mills West Midlands
Nick Gilman Sussex
W.G. Krouwel Birmingham

B. Anderson Isle of Wight
Pauline Cooke Staffordshire
Neil Baldwin Surrey
Dawn Brandl Middlesex
Ronald Rogers London

Editorial

By now all Sub.Brit. members will have had their 'skills and interests' sheets to fill in. The idea is that members with similar interests may want to get together or that if some interesting event occurs in a particular locality willing members might like to rush to it. Already a group specially interested in defence installations is forming and as an example of members rushing to an event one or two raced off to a collapse in a field in Northamptonshire. Unfortunately the hoped for entrance into iron mines did not occur.

A characteristic of many Sub.Brit. members is that they perform excellent recording work in their own districts. They are all very modest and despite prodigious reading efforts by your editor and others it would be easy to overlook their work. Happily not overlooked are two such efforts by David Pollard and Ron Martin described in this newsletter.

Obituary. Ben Ward.

It was with regret that I recently learnt of the death of our member Ben Ward. He contacted me some fifteen years ago and was to become a stalwart supporter of ice-houses. He was the driving force and fought 'tooth and nail' for the restoration of the Hitchin Priory ice-house. Regrettably it was to become vandalised even though incorporated into private grounds of an Assurance Company. For many years he was a leading light in the Hitchin Society and although in his 80s continued to have a lively mind and interest in everything around him.

Sylvia Beamon

Cold War Structures in Britain

The uncertainty of the Cold War, with its attendant spectre of nuclear destruction, led to a huge, hidden program of bunker building across the length of the United Kingdom. During the period of 1945-90, nearly 1700 bunkers were built or converted from existing structures. Apart from the well known Regional Seats of Government (RSG's), this astonishing figure also includes 1563 three person Royal Observer Corps moni-

toring posts with their 31 associated Group controls, a chain of underground Radar control rooms, a network of 27 Anti- Aircraft Gun Control Rooms and a series of protected BBC Transmitters.

The astonishing fact is that the vast majority of these were built in complete secrecy. The well known RSG's were discovered and exposed to public knowledge, only after intense research and a series of high profile break-ins by the 1960's peace movement. To illustrate how secret and well disguised these places were, is the case of the Bunker that would have controlled London, in the event of War. Situated 15 miles from the City of London, under a leafy hillside near the sleepy Essex village of Kelvedon Hatch, it started life in the early 1950's as an RAF Air Defence Control Centre. It was very well equipped, with its own borehole, sewerage works, generators, and ventilation plant. When it became redundant later in that decade, it found a new lease of life as a Sub-Regional Government HQ, from where a staff of Civil Servants, Police, Armed Forces Personnel and Scientists, would have ruled over the Capital.

This bunker was built in just 18 months, and is testament to its Cold War origins. The hill it is under was first excavated to 125 ft.. The bunker was constructed on a 20 ft. bed of gravel, and has reinforced ferro-concrete walls 10 ft. thick. Once constructed the earth was replaced, and the site landscaped, almost to its original state. The resulting 21000 square feet structure was buried beneath 15 feet of earth, under a stand of mature ash trees. The entrance was disguised as a bungalow, which served as a guardroom for the small force of MOD Policemen stationed there. The whole place was alarmed, with links to the local police station. From the road, the site was completely anonymous, the only real give away being the top of the 150 ft. communications mast being just visible, above the ash trees.

This site is just typical of the many Secret Sites dotted all over the landscape of the UK. There were three main waves of bunker construction, during the Cold War. These were:

1950-53

1st phase of construction, with 12 Radiation and Blast proof Regional War Rooms, being built in provincial

towns. A network of 75 underground bunkers for RAF Radar stations (the "Rotor" scheme) and a series of 27 protected Army Anti Aircraft Gun Control Rooms 1959-62

The imminent threat of Soviet H-bomb tipped Missiles, spawns the next phase of building. The famous RSG network was constructed, mainly using former underground sites (i.e. Dover Castle, Warren Row Chalk mining works). At this time the ROC was completing it's network of 1563 monitoring posts and 31 protected group controls. Also the BBC starts building a chain of protected transmitters

1970-90

The final and sporadic phase of building, was concerned with "filling the gaps". This includes the replacement Regional GHQ scheme, and the complete new build of an Government HQ at Kingstanding, Sussex, on the site of a World War 2 underground radio propaganda transmitter complex

If you are interested in this fascinating side of history, you will be pleased to know that several members of Sub-Brit are too. We are concerned that in these happier (!) times, many of these interesting sites will be sold off, or just disappear without trace, before an accurate record can be made of them for posterity.

Tex Bennett

In the survey of members interests so far the following have specified their interest and willingness to collaborate on the topic of military bunkers.

Tex Bennett, 6 Walnut Way, Beechcroft, Bilton, Rugby, Warwickshire. CV 22 7TR 01788 521646

MC. Black, Hardknott, 25 Chadwell, Ware Herts, SG12 9JY, 01920 467930

John Burgess, Woodside Cottage, Chequers Green, Lymington, Hampshire SO41 8AH 01590 677695

T. Butterworth, 54c Elmo Road, London, W12 4DX (Not to be telephoned)

Nick Catford, 77 Burleigh Road, Sutton, Surrey, SM3 9MB 0181 644 0118

Andrew Emmerson, 71 Falcutt Way, Northampton, NN2 8PH 01604 844130

Nick Gilman, 4 St. John's Close, Mill Lane, South Chailey, Lewes, East Sussex BN8 4AX 01273 400872

David Ferris, 30 Avonmore Road, Kensington, London W14 0171 602 1172

Jonathan Maisey, 5 Isbourne Road, Cheltenham, Gloucestershire, GL52 5QG. 01242 233400 Work 01242 221491 X2987 or X3172

Ron Martin, 32 Falmer Avenue, Saltdean, Brighton, BN2 8FG 01273 303805

Malcolm Tadd, 65 Trindles Road, South Nutfield, Redhill, Surrey, RH1 4JL, 01737 823456

Gerald Tagg, Flat B, 30 Bedford Place, London, WC1B 5JH 0171 636 3588

Please let me know if you wish to be included on this list. It is obviously incomplete! Editor

Request from Tex Bennett

Is anyone interested in, or can anyone share information on the following.

Nuclear bunkers. sub-regional HQs, (SRHQs). Regional seats of government. (RSGs) Regional war rooms. Protected AA gun control rooms. ROTOR Plan Radar stations. Thor missile sites. Bloodhound missile sites. ROC sector/group headquarters. ROC/UKWMO bunkers. BBC protected transmitter sites or anything related

Please contact Tex.

Book Review

Attack warning red. The Royal Observer Corps and the defence of Britain 1925 to 1992. 2nd edition, 1992. By Derek Wood. Portsmouth: Carmichael and Sweet Ltd. xi + 357 + xxxii pp. ISBN 0 356 08411 6 £22.95

The Royal Observer Corps, the idea for which originated during WW1 was formally established in 1925, with the task of detecting, identifying, and plotting the courses of incursions by enemy aircraft. During World War II, its tasks were extended to similar functions in respect of the V1 missiles. During the 'cold war' technological advances in weaponry were such that attacking aircraft or missiles would approach so fast, and at such high altitude, that the network of observers (all unpaid volunteers) operating with equipment on a shoestring budget was useless for the original purpose - although by that time large numbers of fully or semi-underground observation posts / plotting rooms existed across the entire country.

The ROC was assigned a new role, with responsibility for detecting, measuring, and plotting the drift of radioactive fallout from any nuclear attack on the UK. Fortunately, a 20th century re-enactment of 1066 was not to happen (and one hopes will not happen in the five remaining years of the century'), and on the passing into history of communism and the cold war the ROC was 'stood down' in 1991 - 92. The book was originally published in 1976. This is a reprint with (oddly and unhelpfully) a 'Foreword to new edition 1992' and a 32 page updating section tacked on at the end of the book. The text contains fascinating sections on the ROC's role in correctly identifying Rudolph Hess's airplane in May 1941, and the identity of its pilot; and in recognising the significance of the first V1 attack in June 1944, alongside more mundane plotting of enemy aircraft attacks. It includes a detailed list of the (often underground) ROC command centres and observer posts. Despite the incredibly bad reproduction of what had started, almost certainly, as excellent crisply printed photographs, this is a valuable historical study, a most readable book, and an impressive assemblage of detailed information on a little-known and poorly understood element of Britain's defences.

Paul. W. Sowan

Historical and archaeological assessment of the underground quarries now known as Firs mine and Byfield mine. September 1994. David Pollard. 100pp. Available from, Director of Property and Engineering Services, Bath City Council, 9-10 Bath Street, Bath BA1 1SN (0225 4611110 for £11

Under the more general heading 'Combe Down quarries' these two quarries have been the subject of discussion and controversy for some time. Bath City's plan to virtually destroy them by stabilisation works has provoked fierce reaction from organisations concerned to preserve important monuments of Britain's industrial past. David's report was commissioned by Bath City to (as David says) 'determine the historical and archaeological importance, to recommend a programme of further archaeological work, and permit decisions to be made on priorities for preservation and/or appropriate archaeological recording.'

David's work was performed in compliance with a code of conduct provided by Bath City Council. 'The procedures for the management and administration of safety and health at abandoned limestone mines.' Bath City Council also provided a map showing survey stations and shaft positions relative to the surface. The map had been the result of Dr. Hawkin's work.

David's report is designed around a sector plan. The combined area occupied by Firs and Byfield mine is divided into sectors designated A to T. Positioning within these sectors is achieved by measuring from shafts and survey stations on a stated compass bearing. Using this system the position of points of interest and finds are recorded.

With regard to finds, these were generally left underground at least for the time being. In keeping with the meticulous way in which the whole report was produced an attempt was made to account for artifacts which had been previously removed from the quarry by bottle hunters and such like. Some of these are illustrated in the report.

The report contains photographs but in black and white although the originals were in colour.

A summary of information derived from archival sources over 20 years is included. This includes William Smith's papers but not Ralph Allen's - these have not survived.

There are 19 pages of history and the report is worth reading for this alone.

51 pages of the report are devoted to archaeology and the the considerable physical difficulties in effecting an archaeological survey are discussed. Where possible the archaeology is related to archival information. For example it is still possible to confirm William Smith's obser-

vation some 180 years later.

The headings subsumed under archaeology are, conditions underground, geological, quarrying and digging, haulage and transport, handling, waste stone, ceiling support, lighting, social aspects, aerial photographs, intrusive material, the finds, figures and photographs and other features

As regards recommendations, the report describes, with reasons, areas of the quarry systems which should be retained. (Unfortunately this is unlikely to occur in total although BIAS and the Bath Preservation Trust are still valiantly fighting the preservation battle.) Also the need for the following is pointed out. More photographic work, a study of haulage routes and light holes to work out how the quarry system evolved and a study of the introduction of saws and cranes.

It is important that anyone contemplating producing a report on stone mines which have an importance in history, reads this report. It is an example of doing the job properly.

Ice-houses in Sussex. Ron Martin. Article in Sussex Industrial History. Issue 24. 1994. £2.50

This 14 page article describes domestic ice-houses in East and West Sussex. Commercial ones had been previously described by the author in Issue 14.

This comprehensively referenced article briefly surveys the history of ice-houses which, as far as is known, came to be constructed in Britain starting in 1660. Ron notes that in his experience domestic ice-houses were solely used for cooling drinks and producing cold confections - never for food storage.

The article is basically a gazetteer of almost 100 ice-houses but the information collected about site has been carefully analysed and three basic types of ice-houses have emerged. The gazetteer types each ice-house accordingly, names the site, gives the NGR and gives brief notes about each ice-house. The notes contain such things as variations on the basic types and the source of the ice. These subjects are also discussed in the three pages of text and diagrams. In addition tiny plan and section drawings are appended for most of the ice-houses.

Very properly Ron has visited all the sites in as much as it is possible. Some of the sites are known only from documentary sources and the ice-house cannot now be found.

Ron Martin will ever be associated with beautiful architectural drawings and this excellent article is no exception. There is also a superb three dimensional cut-away drawing of Hotham Park ice-house on the cover of the journal.

I belong to the school of students of industrial archaeology who are primarily excited by the visual aspects of the subject. Thank God for people like Ron who can capture it with pen and paper

Footnote:

The definitive book, *Ice-Houses in Britain*, Sylvia Beamon and Susan Roaf, is now remaindered and can be obtained at the incredibly low price of £25 + £5 p+p from Sylvia.

An unusual cellar under the Anchor Inn, Salterford, East Lancashire.

Lancashire Evening Telegraph has a centre fold devoted to the 'amazing garden of stalactites and stalagmites' in this popular pub cellar. (It's really a glorified advertisement!)

It is claimed that the pub dates back to 1665 and was a resting place for drovers and salters as they travelled between Lancashire and Yorkshire. When the Leeds Liverpool canal was excavated in 1770 the pub fell below the water line and consequently a new building had to be constructed on top of the then existing one.

The stalactites and stalagmites owe their existence to the fact that this limestone basement was left to the damp and water drips.

Bill Davidson hopes to visit this pub on the winch weekend

Good news for ladies (or is it men?) travelling in New York

The Daily Telegraph 2.9.94. tells us the New York Transit Authority now permits ladies to travel bare-chested on the New York Sub-Way but not if smoking or otherwise misbehaving.

And I've always worried about my fingers getting caught in the doors

Collapsing tunnels

The fatal tunnel collapse in Austria when a crowded bus crashed into a void in the Truderinger Strausse, Munich is associated with the New Austrian Tunnelling method. In 1980 the same happened in Munich.

Railtrack is concerned that the same method is being used by London Underground on the Jubilee line extension. Their worry is that tunnels have to be dug under Railtrack property. Reassurance that the NATM is safer in London Clay than in the Munich sub-soil have fallen flat since the collapse of the Heathrow Express Link Tunnel.

From, Underground News, No. 395, Nov. 1994

Folly restored

The restoration of Shell Grotto, Pontypool Park, Gwent is nearing completion.

It is circular, made of rough stone and is attributed to

S. Gunston Tit in 1830. It has a cave-like appearance, has artificial stalactites, crystals geometric designs and stained glass windows.

From, Follies, Winter 1994

Joseph Williams' Liverpool folly

In the 19th century Joseph Williams spent £100,000 on a vast labyrinth of tunnels under Liverpool for no apparent purpose. These were re-discovered by local community worker Gabriel Muies in 1986 and he hopes to get them opened to the public.

From, Follies, Winter 1994

Underground Hermitage at Pontefract, Yorkshire

Under the Pontefract General Infirmary is a listed Grade I 14th century hermitage which is not open to the public. Unfortunately it is cracking badly but Wakefield District Council have not pressed for its' repair. According to PPG 15 an owner cannot be required to repair a listed building but the local authority have a duty to ensure it is repaired. Therefore if the hospital (the hermitage's owners) were served with a repairs notice, failure to comply would result in the local authority initiating compulsory purchase procedures. As the District Council do not want own the structure they are reluctant to force the Hospital Authority's hand. (Another government idea backfires?) The underground hermitage consists of a chapel and living cell 20 feet below ground and a room containing a well which is 30 feet lower and reached by a spiral staircase.

The whole structure is in bedrock and the domed chapel contains an altar, well-seating, fireplace and chimney with crosses carved into the walls,. The living cell contains an alcove with seating and its' ceiling is carved to resemble ribbed vaulting.

The Hermitage is thought to have been established by monks from St. Richard's Priory.

From British Archaeological News. No. 17 Oct. 1994

Enquiries by your editor discovered that the site was listed but not scheduled and it is now proposed to strengthen the road above which should prevent further deterioration.

John Major needs a secret bunker.

John Major has a top secret bunket so secret that its' plans cannot be released to workers tunnelling the Jubilee line. Therefore the tunnellers keep damaging the bunker and its' communications system.

From Underground News. No. 397 Jan 1995. (Quoting Tonight No. 47, 26.9.94

Military Mining at Seaford in 1850

The following extract is from T.J. Connoll's *The history of the Corps of Royal Sapper and Miners*. Vol. II, pp. 116 - 119 (1855.)

At Seaford Bay ... the sea had made considerable encroachment, so as to jeopardise much of the adjacent

property, and also the defences and martello-tower in its vicinity. Large sums of money had been expended in the construction of wood groins and clay embankments, with only partial success; and as an effectual remedy, it was proposed to throw down by mining a portion of the chalk rock itself, in the direction of the tidal current, and thus cause it to accumulate the shingle, and protect the land and contiguous property. ...

The works were conducted under the direction of Colonel G.G. Lewis, R.E., with Captain E.C. Frome as his executive officer. In the face of the cliff, about thirty-five feet above high-water mark, a nearly horizontal gallery was cut into the chalk. The mouth of this gallery was approached by a ladder and platform, supported by scaffolding. At right angles from this gallery, extending fifty-two feet to the right and sixty-two to the left, were corresponding galleries, at the extremities of which were two chambers of seven feet cube, containing 12,000 lbs. of powder each. Two wires, respectively in connection with two of Grove's batteries, completed the arrangements for exploding these charges simultaneously. The chambers of powder were about seventy feet from the face of the cliff, and were intended to drive out its under portions and roll them towards the sea. Upon the surface of the rock, eighty-four feet from its edge, were sunk five vertical shafts, at the bottom of which other chambers were excavated, containing, in three of them, each 600 lbs. of powder, to be fired simultaneously with the two great charges. The two other chambers were not loaded, from the non-arrival of a sufficient quantity of powder. The shaft chambers were connected by wires to a Smee's battery, placed in a wooden shed erected about 180 feet from the edge of the cliff. ...

The galleries were tamped with sand and chalk in bags, to within fifty feet of the mouth ...

All the necessary operations being completed, the great explosion, on a signal from the galvanic battery by sergeant Edward Wright, took place on the 19th September, under the immediate orders of Colonel Lewis. The effect of firing the two great chambers was to throw out the under portions of the rock, which, from the downward pressure of the superincumbent masses, rolled towards the sea, carrying with them the three smaller chambers unexploded, and causing deep fissures in the chalk as far back as the very foundations of the battery shed. The undertaking, so far as dislocating an immense mass of chalk from the cliff was concerned, was thus perfectly successful; but subsequent experience has thrown doubts upon its utility as a breakwater, for the chalk is gradually being washed away ...

The explosion was one of the largest that ever occurred, and it passed off without accident, delay, congestion, or inconvenience to any one of the detachments engaged, or of the thousands of spectators who witnessed the operation. (The accidental destruction of the three smaller chambers was providential, for had they exploded, the battery shed, with Captain Frome and his assistant, would inevitably have been carried away, and crushed among the falling masses...) The quantity of chalk displaced was about 200,000 cubic yards, or about 380,000 tons. The

distance the debris was hurled in front of the original line of cliff was more than 300 feet. The average breadth of the mound formed was about 360 feet, and its mean height about 50 feet.

Much of the expense of the service was paid by Mr. Catt, jun., a miller, to whom the surrounding property belonged, and who, as well as for his own interest as for the welfare of Newhaven and its harbour, undertook a large share in the liability. The total cost of the work was 907L 12s 11d.

Notes

This method of bringing down large quantities of rock was once an accepted method of quarrying, and early volumes of *The Quarry* contain numerous descriptions of 'monster blasts.' Indeed, a 'heading blast' was used in a Cumbrian slate quarry as recently as December 1985 (described in Cumbria Amenity Trust's *The Mine Explorer 3* (1989), pp. 83 - 87.) As a means of taking back a cliff line, the Seaford heading blast followed the precedent set by William Cubitt in the 1840s when he arranged for the explosion of 19,000 pounds of gunpowder under Round Down during the construction of the South Eastern Railway between Folkestone and Dover. This is described in some detail in F.S. Williams' *Our Iron Roads* (1852), pp. 117 - 121.

Paul W. Sowan

Sea clean-up at Ramsgate.

A visit on 21 Sept. 1994 to Ramsgate's new pumping station and St. Augustine's Storm Attenuation Tank is described in *IWEM News* November 1994, No. 51. This is Southern Water's scheme to catch and treat storm water overflows from Ramsgate's sewers. These discharges contaminate bathing water with sewage.

St. Augustine's Tank is 30m below ground level, is 4.5m in diameter, is 760m long and has been driven through the Upper Chalk. A similar scheme is in progress on Brighton beach.

Thanks to J.W. Ridgway for the cutting.

Abandoned chalk mines at Jaqueline Close, Bury St. Edmunds, Suffolk.

In the 1960s a housing estate was built in ignorance over abandoned underground chalk workings at Bury St. Edmunds. After collapses occurred the houses were bought by the council and demolished. The site was fenced off and warning notices erected. Before this however Chelsea Speleological Society were able to perform a survey.

Recently St. Edmundsbury Borough Council secured a derelict land grant from English Partnerships for the purpose of producing reports on the history and conditions of these mines. In the light of these reports and associated recommendations a new council which will be elected in May will be able to take some action. As a contrast to Combe Down there does not seem great enthusiasm to fill these mines.

Reports indicate two distinct sets of mines, both extensive and composed of large caverns. A triple double

decker bus size is quoted. The engineers have sunk new shafts for access.

Delta Civil Engineering were contracted to perform the work.

Chris Lait of the council was contacted by Sub. Brit. but Sub. Brit. appears to be just one of a queue of many who are interested in visiting the site. We hope we will get a chance later.

Graham K. Scott and Sylvia Beamon provided local newspaper cuttings on the site. Also someone whose name the editor has lost! sent a very interesting cutting from New Civil Engineering, 9 Feb. 1995

Possible denehole reported at Westmill, Hertfordshire

Westmill is on A10. Patty Briggs reported ('1992) shaft 9 ft. wide, 15 ft. deep with iron ladder down. Contains tunnel 500-600 ft. long with one end ending in a pit. Contains bats and Patty talked to farmer. Is it a denehole, chalk mine or chalk mine?

Man and dog die.

Donald Tollet and his dog died from carbon dioxide suffocation when walking through his brother's furniture factory in Widdrington, Northumberland. The Coal Authority is investigating whether the source was a nearby coal mine shaft, closed 30 years earlier. From Telegraph 13 Feb 1995. Thanks to Roger Morgan.

Underground village to be built

The Hockerton project in Nottingham will be the United Kingdom's first underground self-sufficient eco settlement to be built as a village. Needless to say a British Earth Sheltering Association member, Nick Martin is the instigator. It will be run as a cooperative, with families combining their normal jobs with small scale food production and fish farming. From Independent on Sunday, 7 Feb 1995. Thanks to Roger Morgan.

Water pollution

The European Commission is concerned about ground water contamination caused by mines at Bishop Auckland, County Durham. In common with local authorities it wants to force the Government to strengthen liability law on pollution.

From Financial Times. Thanks to Roger Morgan.

M. and I.K. Brunel's Thames Tunnel

This tunnel otherwise known as the Rotherhithe tunnel was constructed during 1825-43 against, what at the time, were almost insuperable difficulties. It is regarded as the first underwater tunnel to be built. It was successful only because the tunnelling shield was invented for the job. Its' successful completion was an historic turning

point in civil engineering. Originally built as a foot tunnel it was eventually incorporated into the London Underground railway system.

At the end of March Malcolm Tadd and Roger Morgan were very disturbed to hear from our ever vigilant June Gibson that London Underground intended to close the tunnel and reline it with concrete for the purposes of water-proofing it. While working on the Jubilee line London Underground considered that it was an apt time to close the tunnel for some months. It is arguable that there is any significant leakage of water into the tunnel but London Underground's argument was that this was a suitable time to protect the tunnel against future leakage. London Underground was able to plan work on the tunnel unencumbered by legal difficulties, since although the shafts to the tunnel are protected by listing the tunnel itself was not.

Letters to The Times by the Newcome Society; The American Society of Engineers and the Centre for the History of Technology, University of Bath protested that it was outrageous that a monument of such historic importance should be treated in a cavalier manner and with no consultation with concerned organisations. The brick lining was important in its own right and covering with concrete was an act of mutilation. The CBA appealed to Secretary of State for National Heritage to list the tunnel immediately. Sub. Brit. collaborated with the CBA in writing a letter to The Independent which was not however published. It is very pleasing to report that Stephen Dorrell did list the tunnel at the last minute and discussion can now occur before any action is taken.

The following points have emerged as the result of this alarm.

1. The Government seems sincere in its' view that the listing process should involve public discussion. If you feel strongly that a structure needs the protection of listing, start campaigning.
2. Nick Catford offered to perform a photographic survey of the tunnel.

However T.G. Hassel, Secretary Royal Commission on the Historical Monuments of England, National Monuments Record Centre, Kemble Drive, Swindon, Wiltshire points out the photographic record of the tunnel is available for consultation at that address or at 55 Blandford Street, W1

3. The press coverage was, New Civil Engineering, 2 Mar 95 and 9 Mar 95 also The Independent 22 Mar 95.

4. As a piece of irony Roger Morgan says the original tunnel has already been relined with terracotta tiles! This seems to have escaped the attention of the established authorities writing to The Times.

Book Review

To be a Gypsum Miner

Carl R. Rogers : To be a gypsum miner. The Pentland Press Ltd : x + 183pp. ISBN 1 85821 189 1 £9.50.

Carl Rogers started work in Stamphill Mine Well Drift (Cumbria) in 1968, transferring to nearby Birks Head mine in 1969, and then to Longriggs mine in 1972, remaining there until 1987. Subsequently he was mine

superintendent at Newbiggin mine, 1987-93 All these mines, worked for gypsum and some anhydrite (hydrated and anhydrous forms of calcium sulphate), were near Kirkby Thore (NY 6325) in the Eden valley, Cumbria. Newbiggin (NY 630270) was a short distance to the north west. Longriggs (NY 564257) and Birks Head (or Birkshead) (NY 668258) were in the same neighbourhood, and are listed as still working in the British Geological Survey's 'Directory of Mines and Quarries, 1994'. The deposits mined were within the Permian Eden shales. Rogers notes that the workforce at the Cumbrian gypsum mines declined from 200 or more in 1968, to 17 in 1994. The principal end-use for the gypsum mined was the manufacture of plaster-board for interior building works.

The author deals largely with gypsum mining from the faceworker's point of view, and gives a vivid description of his first few weeks in a strange workplace - he had previously worked in shoemaking, and as an AA patrolman! Significant numbers, however, had entered gypsum mining from lead or barytes workings. The human and social side of mining is well covered. But what makes the book of particular value is the wealth of technical detail of how faces were blasted, and of underground equipment used.

Readers may need some preliminary understanding of the technicalities of blasting and of stone handling to follow the technical descriptions, as the author tends to introduce such terms as 'zero dets' or 'ANFO' (presumably an ammonium nitrate /fuel oil explosive mixture) assuming these will be instantly understood. Sooner or later, however, most of the technicalities are explained in quite simple terms. There are numerous annotated sketches and line drawings to illustrate aspects of mine development, shot-firing, and equipment.

The book is not well-structured has no index, and has no guide to further reading. There are no photographs, and no location maps or grid references. It is, nevertheless, a valuable first-hand insider's account of mining in an industry sector which is seldom in the public eye, and which little published literature is available. It is likely to be of interest to mining historians in general, and to industrial archaeologists and historians in the gypsum-mining districts including Cumbria, Nottinghamshire, and Sussex. The text is a most welcome complement to the existing books on the gypsum and plaster-board industry. David Jenkins' 'The history of BPB Industries' (1973), and John Routley's 'A saga of British industry. The story of the British Plaster Board Group' (1959) provide an overview from a management viewpoint, and plenty of photographs of directors and management! Carl Rogers' account, with all faults, is highly recommended for those who would like to know what was actually done underground, and how it was done.

Paul W. Sowan

Book Review

The Channel Tunnel story.

Graham Anderson and Ben Roskrow, The Channel Tunnel story, 1994 E. & F.N. Spon : xvii + 218pp ISBN 0419 19620 X £14.99

The authors of this book are journalists specialising in the construction industry, and have in recent years specialised in writing about the planning and construction of the Channel Tunnel in Construction News. Their narrative commences in 1975, with the abandonment of the previous tunnel project during which only a few hundred metres were driven. Political, financial, management, and technical aspects of the story are presented.

Paul W. Sowan

Book Review

Underground excavations in rock.

Evert Hoek and Edwin T. Brown, Underground excavations in rock, revised first edition, 1982, reprinted 1994. E. & F.N. Spon, for Institution of Mining and Metallurgy : 527pp ISBN 0 419 16030 2 £35

This is a specialised work on the geotechnical aspects of the design of underground openings for mining and civil engineering purposes. For the general reader the most interesting feature will probably be the 14 page tabulated survey of large excavated rock caverns worldwide, with notes on dimensions, depths, cavern geometry, rock-types and support details, completion dates, and literature references (there is a bibliography of over 300 references dealing with specific sites.) This is about 'large artificial caverns' (the great majority being underground hydro-electric power station turbine halls and the like), as distinct from long tunnels. Almost all are from the early 1950s or later, although the Innerkirchen power station in Switzerland (19.5 x 26.8 x 100 metres, in gneiss) was opened in 1942, and the Durban Roodeport deep gold mine hoist chamber in South Africa in 1948. Other types of underground structures include wine and liquor storage rooms in Stockholm naval storage chambers on the Swedish Baltic coast, oil storage caverns near Helsinki, and in the USA the Nevada test site cavities (1965), and the NORAD complex at Colorado, where 'three parallel main chambers 14 x 18 x 180 metres, plus several other major excavations' in granite at 400 metres depth are recorded. Only two British sites (the power station halls at Cruachan and Dinorwic) are listed (the book pre-dates the Killingholm 1pg storage caverns), none from former eastern bloc Europe other than the Lipno power station hall of 1957 in the former Czechoslovakia, and none from the former USSR.

Paul W. Sowan

Book Review
Tunnelling '94

Institution of Mining and Metallurgy, tunnelling '94, Chapman & Hall, 1994, for IMM and the British Tunneling Society, xxi + 823pp ISBN 0 412 59860 4 £99.

This volume is of papers presented at the 7th International symposium Tunnelling '94, held in London. The scope is worldwide, and over 40 papers are printed. Of particular UK interest are contributions on various aspects of new works on the London Underground, the London water ring main, sewerage tunnels in Cornwall, water and sewerage tunnels in NW England, a road tunnel in north Wales, the submerged tube tunnel under the Medway, and the French crossover cavern in the Channel Tunnel. The description of the now widely employed New Austrian Tunnelling Method, at Heathrow, predates last summer's spectacular tunnel failure and building collapse. Fortunately, the delicate job of squeezing additional underground voids for the underground railways in London between and under existing structures, for example at Mansion House and Waterloo, was achieved more successfully. The three-dimensional layout of tunnels below Waterloo's Victory Arch, the Waterloo & City line tunnels, the Northern Line, and Elizabeth House (in waterlogged river gravel) is particularly fascinating. As is the creation of the Gjøvik Olympic Mountain Hall in Norway, with its world-record 61 metre roof span.

Paul W. Sowan

Eastlays depot

This was originally a large underground Bath Stone quarry in Wiltshire, formerly called Pictor's Monks. The workings had become disused by the 1930's when the Royal Engineers converted them into one of the three main Corsham Central Ammunition Sub-Depots. They removed the old 2'5.5" gauge quarry railways and installed their temporary 24" gauge lines instead. Permanent track left on slope shafts is of a narrower gauge.

Eastlays was estimated to have a net storage capacity of 797,000 square feet after conversion, divided into Districts numbered 21 to 25. Most of the ammunition handled there in the 2nd World War was moved by conveyor belts, which had limited weight capacity but were preferred to railways for ease of operation. Two of the three slope shafts had haulage railways, worked by electric winch and cable with guide rollers between the rails. The largest bombs went instead to nearby Ridge Quarry which was equipped only with railways and worked as a "satellite" of Eastlays. The electricity and water supply services were common for both. The single track on No 3 shaft was not normally used for munitions. Near the base, a set of points allowed the lines to extend in two directions. These served underground barracks and the stand-by power station with switch room and workshop.

The establishment was finally sold off as surplus to a

Shepton Mallet farmer in 1975, along with Monkton Farleigh Sub-Depot. The Agent was Henry Butcher & Co. The other Sub-Depot (Tunnel, at Box) has not been decontrolled, though disused from about the same time. Eastlays was bought in 1980 by a consortium of London businessmen. Their ambitious proposal to develop it as a large nuclear shelter failed. Fraser and company subsequently established a bonded warehouse in the workings which therefore cannot normally be visited. All the conveyors were stripped out allowing free access to storage bays for electric forklift trucks.

The writer visited Eastlays on 8th August, 1994. It was then owned/operated by Octavian Ltd, Mine Manager Mr. John Turner. Until recently, the only converted areas not in regular use for storage were Districts 21 and 22. These sometimes had Grand Prix tyres stacked in, without air conditioning or lighting. However, the leasing of 24 District to Leafield Engineering for storage of ex-MOD surplus equipment meant a need to upgrade 21 and 22 for regular use.

The original winch and two much rebuilt wagons on No 2 slope shaft had been the sole regular means of access for goods but this being leased, attention turned to No 1 slope shaft instead. This had been bricked up and disused, being equipped only with a conveyor which the owner considered unsuitable for moving goods. A large, completely new surface building was erected to serve it with roll down doors for lorry bays and an office. The original surface building with three bays was completely erased.

A new electric winch (named "Slack Alice") was installed with 2 ft. gauge railway by Carnon Engineering, who have relevant experience from Cornish tin mines. Wagons were built by EDS (UK) Ltd of Redruth. This new facility came into regular use in September, 1991. Each journey up or down takes 3 minutes. The most commonly stored goods in 21 and 22 are soft drinks or beer and wine bottles. Working flat out, the shaft can handle up to 9,000 bottles inward or outward each day.

The old access route to the Barracks area has cardboard boxes of "old documents, which we are required to keep" stacked along it. Until a few years ago, much "scrap and rubbish" was jumbled in there which, if what remains is any indication, included many interesting relics. The former Barracks are extensively relined and air conditioned to serve as modern offices which, but for the lack of windows, might easily be on the surface. No 3 shaft is retained only as an emergency access, though intact with 2 ft. gauge track up it and runaway bar. The open surface platform still exists, though overgrown with weeds, and the ruined winch building contains a few fragments of the old machinery.

Most of the smaller original metal doors are retained underground (complete with brass makers plates) but the larger ones at District entrances from the Main Haulage have gone, with the lintels hacked out to give higher access. Curiously, original lighting and switches remain in place but modern strip lights provide more efficient illumination. Even some conveyor switch boxes remain, though totally useless today. Fire hoses were

originally provided at intervals and remain, though renewed as and when required. There was only one sewage ejector pit, which continues in use with modernised control gear. It flushes up to the surface main sewer. Apart from ground water, it deals with the one remaining toilet facility. This is enough for the staff presently employed underground. All other wartime toilets are "blocked off" but intact, like time capsules !

Much effort has been put into eliminating ingress of damp by localised "tanking" methods and installation of efficient new temperature and humidity control equipment. The original 50hp air fans remain in use, situated at the top of exhaust shafts. There is one for each District. They have been modified to "inverter drive" for economy. One original 150hp horizontal fan serves 21 and 22 Districts underground. Two new, smaller fans have been put in the air trunking as boosters to improve flow of fresh air into 21 and 22. Because of the PCB hazard, the old transformers have been encased in concrete in position and new ones installed with modern switching nearby. At least some of the old switchgear remains.

Perhaps the greatest and most pleasant surprise was to find the wartime power house absolutely intact, fully equipped and layered in dust. The Mine Manager said the diesel engine could have been started up if required until the 1980's and even now might be got running and supplying electricity with relatively little work. The two large fuel tanks also remain in place. The effort and expense of removing these facilities would be so great that even if the space was wanted for something else, they might possibly stay. The original workshop nearby is still used for equipment maintenance/repair and is likely to be extended into the former battery charging room. Red painted wooden (rather than steel) workshop doors have been summarily sawn back to stubs.

Throughout the establishment, floors appear now to be smooth concrete with very occasional patches of tarmac. No old colas (crushed coal and tar) was noticed, even where patches showed that conveyor bases had been removed. A surprising number of significant inclines were encountered along the floors, most notably on the access to the barracks area where the 2 ft. gauge swoops like a fairground ride, and a ramp up to 25 District which is on a slightly higher level. Large amounts of heavy street tram rail were installed as roof supports, especially along the Main Haulage.

Enquiries confirmed that a significant area of unconverted old workings exists, extending further towards Goodes Hill than is indicated on the 1941 survey, and does contain "old wartime scrap" in parts. There are access doors, possibly from the leased Districts. The heading towards Goodes Hill from 24 District is walled off but still has an air shaft at the outer end. Although many walls are encased in concrete, smaller bays can be seen exactly as left by the quarrymen but painted white.

Modern storage here uses a system of free standing shelf units, two levels deep with a stacked pallet fitting on each. This does present some problems for the small forklifts where access ways are too narrow for them to

turn in. The drivers have named some forklifts and one even has painted eyes. Whilst some old pillar/bay numbers are retained, others have been re-numbered to aid "picking" of goods for clients. In wartime, munitions were just stacked on the floor (hence the special soft colas coating to prevent shocks or sparks) and moved by soldiers manually or with small barrows to and from the conveyor belts.

With consent of the lease holder, the surface platform only for No 2 shaft was inspected. The overhead "Monorail" I beam and little trolley remain, obviously disused. The original track now has an inclined ramp added over it at the top, quite lightly built of angle iron and extending further towards the winch. The two wagons could not be closely inspected but have steel flat tops and one tall end. The new wagons for No 1 shaft are obviously modelled on these, but longer. Both shafts have closed circuit TV with screens at the top for maximum safety. There seem to have been only a few railway wagons used after conversion of Eastlays, in contrast to Monkton Farleigh.

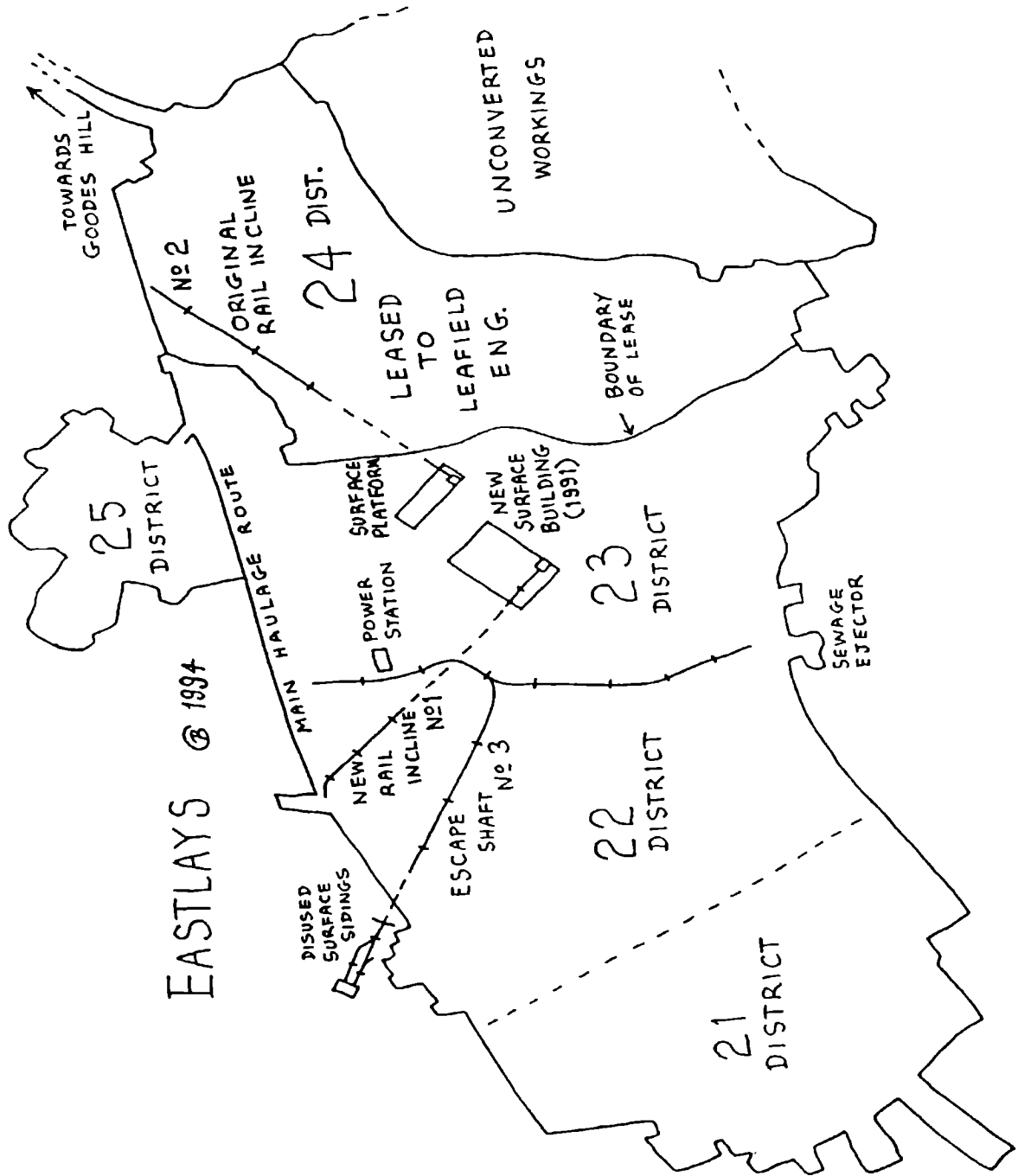
In conclusion, my visit left me with the impression of a well maintained, efficiently run business with cheerful staff but which happens to have preserved a lot of wartime relics. Visits are not encouraged on a regular basis because of the nature of the goods being stored on behalf of clients, and the need to preserve good security. However, very small groups can be shown round from time to time if properly arranged in advance. I would like to express my thanks to the management for allowing my visit, which was arranged by Keith Ward.

Brian Clarke

WEST EYE VIEW HTV television broadcast 7-30pm
Tue 10 Jan 1995

The first part of the programme deals with health hazards of working with asbestos. The second part relates to underground bunkers both in former Bath Stone quarries and specially built by the military, BBC and GPO Telephones (referred to as BT). This part is narrated by James Garrett with research by Sarah Hinks and/or Melanie Tolchard. These notes are NOT an exact transcript but contain all relevant information. Anyone using it is strongly advised also to read relevant parts of the book "Warplan UK" by Duncan Campbell.

If Britain had ever faced the threat of all out nuclear attack during the Cold War, the Government would quite literally have gone underground into a network of purpose-built bunkers. Top political and military leaders with an army of civil servants would have sat out any attack and subsequent radiation hazards, safely underground. To show the contrasting fate of civilians, a clip was included from the Government training film, "The Atomic Bomb, its effects and how to meet them". With the end of the Cold War, there is now a shortage of potential aggressors able to threaten us with nuclear destruction. Seventeen of the Regional Seat of Government (RSG) bunkers in England and Wales are now



being offered for sale as surplus. Others in Scotland are handled separately, at least one already being sold some time ago.

Cameras were allowed into the RSG for the West Country at Chilmark near Warminster by John Francis of Land Agents Unicorn Consultancy, responsible for marketing these properties for the Government. This bunker was built at a cost of £7 million to house up to 150 people self-sufficient for one month. These would mainly have been civil servants and various Government Departments, all headed by a Government Minister. They would have become effective in the event of London or the main control (presumably a fleeting reference to Hawthorn, described later) being knocked out by an attack. This particular RSG at Chilmark had been operational for less than a decade when declared redundant by the Home Office. Less than 1/20th of original cost is likely to be recovered from sale on the open market. Stated possible new uses are wine stores, security vaults, art galleries, museums. One former RSG in Scotland (possibly Edinburgh) has become a night club, now known as "The Bunker".

Of the dozens (?) of RSG's built in the UK at a cost of hundreds of millions of pounds, many have been redundant for some time. The one at Bedminster, South Bristol, was shown derelict and boarded up to keep vandals out.

A bunker was built for a different but related purpose at Warmley, East of Bristol, in 1953. The date was visible carved in stonework beside the entrance, surmounted by letters "ER II". It is now maintained by British Telecom. When enquiries were first made about it three years ago, BT stated (wrongly) that it was of no wartime significance. It is actually a fortified repeater station protecting all telephone lines to London, built of reinforced concrete and half buried below ground.

Whitehall is keeping the most important centre at Corsham in Wiltshire, the National Government Bunker code named Hawthorn. It lies within a few feet of the Bath to London main railway line where this runs through Box Tunnel. Showing one of the tunnel entrances, a smaller side entrance was described (incorrectly) as a special siding for the bunker, now disused with track removed and fenced off outside. It was actually used for a munitions store, operated jointly with Eastlays, Ridge and Monkton Farleigh.

A map was shown which outlines the size and shape of the stone quarries under Box Hill taken over by the Government in the 1930's, with the present day surface road plan overlaid on it. The bunker is far bigger than the RSG at Chilmark. A surface view was shown of RAF Rudloe Manor, beneath which lies the HQ of Britain's supposedly top secret Defence Communications Network. A sign at the surface entrance to No 1 Shaft Road says "Naval Support Command Training Organisation" which gives no clue that what lies beneath would be as important in an emergency as No 10 Downing Street is in peacetime. This bunker is not only being retained, but refurbished. No details were given but other sources locally tend to support the statement. At nearby Colerne,

new Satellite dishes were shown which are linked to the Corsham Complex. They would keep the occupants in touch with other Government outposts.

Although the RSG nuclear citadels are unlikely now to serve their original use, the world is not at peace so there is some argument for maintaining and even upgrading the "wartime No 10" at Corsham. This was the view of the reporter.

Some idea of the interior at Hawthorn is shown by filming allowed during the Gulf War, in Copenacre storage depot. This is housed in another former quarry adjacent to Hawthorn. The mine at Monkton Farleigh was turned into a museum, after the army had no further use for it as a munitions store. It is now shut, a fate awaiting Copenacre next year. (It was not made clear that Monkton Farleigh was part of Central Ammunition Depot Corsham and never a Government Bunker. Filming showed Main East Haulage travelling downwards past pointwork leading into a District, and the base of 19 District slope shaft, probably during 1994.)

The former Goblins Pit (correctly titled Brockleaze) was a Bath Stone quarry taken over by the Government which is now accessible to those without security clearance. It was used as a munitions store until the 1950's, since when it has become a safe library for sensitive company data. This is an example of the uses which redundant RSG bunkers might be put to by purchasers. West Eye View reporters were shown round by Mr. Trevor Broughton. Owners Wansdyke Security lay great emphasis on the protection it provides against any threat, even nuclear attack. Terrorist attacks in London and major cities have made companies aware of a need to keep copies of data remotely. Brockleaze is an ideal high security, rural location with controlled climate and 24 hour access for clients. These vary from a local solicitor to large manufacturing, retail and financial companies all round the UK. Filming showed the slope shaft with narrow gauge track and rollers for the haulage cable, which are still used. No mention was made of the very high capital cost involved in any conversion of this kind, the lack of this money in present times making any such plan hard to promote as a new business.

The BBC have built nuclear bunkers in recent times at an unspecified number of locations around the UK. These replace studios which the BBC used to have in RSG bunkers like the one shown at Chilmark, now no longer available. A former BBC transmitter station at Washford Cross near Minehead in Somerset is (according to local sources) now normally used for communications with civil emergency vehicles. Steve Smith presently runs "Tropiquaria" in the building, displaying exotic creatures. A new bunker was built alongside by the BBC about a year ago. Steve said it felt claustrophobic inside, when he sneaked a look during construction. Plans show it as 10 person ancillary accommodation, presumably for use in a nuclear war.

A spokesman for the BBC declined to give an interview but said this and similar bunkers were built to allow the broadcast of air raid warnings. They had been planned

before Whitehall decided there was no longer a need and (unconvincingly) he said it would be more costly to cancel them than to press ahead with construction. The reporter mentioned a possible need in peacetime, to warn of disaster at the nearby Hinkley Point nuclear power station. Of course, as ever there is no provision whatsoever for protection of the civil population who are supposed to hide under the table, pray and keep a stiff upper lip.

Notes taken by Brian Clarke 1995

Book Review A guide to the history of technology in Europe 1994

The second edition of this book that has been compiled by Bahr, Boon, Wyatt and Bud has recently been published by the Science Museum at a cost of £9.95. There are 195 pages and the ISBN is 0 901805 73 4.

It is a well constructed annotated directory of European Researchers with well-constructed name and subject indexes, together with guides to institutions arranged by subject.

Disappointingly, mining history and archaeology are under-represented. Ivor Brown, Peter Burgess, Paul Craddock, Joep Orbons, Marilyn Palmer, Rod le Gear, Owen Ward and Paul Sowan are IN but a great many people doing excellent research work in the UK and the rest of Europe are NOT listed.

There is no charge for entry and the volume is an invaluable source for research contacts. This publication is an ideal, and cost free, way to make your own researches and your Society and its publications better known. Entry forms are included in the book but anyone who wants to see sample entries and acquire entry forms should send a stamped addressed envelope to Paul W Sowan, c/o Croydon Natural History and Scientific Society Ltd, 96A Brighton Road, South Croydon, Surrey, CR2 6AD.

Chilmark

As many members are aware, when RAF Chilmark came into being, it enclosed some famous underground stone quarries. Very convenient for bomb storage. The quarries were famed for providing stone for the construction of Salisbury Cathedral and in recent times more stone was needed for the repair of the Cathedral. Thus a curious situation arose in which quarrying was taking place within a secure RAF base. The history has been researched by Ed. Towlson and Paul Sowan has keenly followed the progress of this research.

RAF Chilmark was due for ceremonial closure on 27 Jan 1995.

With regard to its future David Pollard has sent notes which are here summarised.

1. Under the Health and Safety at Work Act, the MOD has a duty of care to protect the public from potential hazards on sites that might be vacant for some time or sold on to others. This means that confined spaces (e.g. air raid shelters), and unsafe structures, such as asbestos struc-

tures and emergency water tanks have to be destroyed.. Cliffs, quarries and electricity transformers have to be demolished and underground fuel tanks removed.

2. The vacant site has to be searched for and cleared of all explosives and things like oil spills.

3. English Nature and the National Rivers Authority has been consulted on the protection of flora and fauna during work on the site.

4. The site would be sold in three lots the part known as Dinton would be developed as a business park by Salisbury District Council in 1995

5. With regard to the railways, independent consultants and Wiltshire County Council have come to a view that future use of any of the railways, e.g. for leisure/theme park type ventures, would not be viable and the tracks and rolling stock were offered back to the Army. The Army have taken some of the locos and rolling stock, some have been sold to the highest bidder, and the tracks too are being raised and sold off to railway companies. The standard gauge spurs into the sites from the London/Exeter line are being left. The RAF Museum at Hendon has had some locos, rolling stock, inert weapons, track and railway signs; they aim to set up a mini ammunition depot, complete with railway.

6. Rare Stone of Chilmark have the licence to quarry stone for Salisbury Cathedral until 1997

Monkton Farleigh

Monkton Farleigh attracts more interest than most subjects within Sub. Brit.

The following extracts from a local paper were sent by David Pollard.

'The old Bathstone mines are on the market, and owner George Backhurst is applying for a change of planning permission in the hope it will clinch a sale.

Up to 80 acres of storage space, seven miles of passages, an underground railway and a constant temperature of about 46 -47 degrees Fahrenheit are offered to the potential purchaser.'

'Mr. Backhurst, a Cambridge businessman who bought the mines 14 years ago, already has permission to store various goods there.

These include vintage cars, documents, art work, and wines, for which the temperature is considered ideal.'

'During the war the mines were taken over by the War Office and used as the biggest ammunition store in Europe.'

'The latest planning application refers to long-term storage of archive material, distribution, a computer centre and office use.'

With regard to mushroom boxes seen outside Farleigh, David comments that they were sold by the former mushroom business at Bethell for use as timber.

Gaping Gill Winch Meet 26th-28th May 1995 (But see below for additional chances)

An invitation to all Sub.Brit. members who would like something different

Bill Davidson will be arranging a visit (in conjunction with Bradford Pothole Club) to this classic system - this being the centenary year of the first descent by E.A. Martel

The suggestion is to travel to Clapham (North Yorkshire) on Friday 26th May. Day two would be devoted to Gaping Gill and on Sunday 28th there would be a morning visit to Ingleborough show cave prior to returning home. (See accommodation.)

We could have three grades of participation:

A. A walk only from Clapham village (up the hillside on easy paths to the shaft at approx. 1300 feet on southern flank of Ingleborough Hill) for 2.5 miles. Watch people 'walking the plank' and taking the drop 360 feet into the main chamber. Climb the hill, return to Clapham or wait for B and C groups emerging.

B. As above, then descend main shaft. Hopefully the main chamber (140m long by 34m high by 27m wide will be floodlit. This place is impressive.

C. An exploration of the Sand Cavern from the Main Chamber, a return trip of about 2 hours. Trip may be extended on request to Old East and Bar Pot Aven

Equipment

A. Waterproofs and boots, packed lunch, although drinks and light refreshments (plus posters/surveys etc.) may be purchased from 'operations tent'.

B. As A, but torch is recommended and helmets must be worn. These can be borrowed at the winch. The winch fee is £5 and is payable on the day.

C. Boiler suit and woolies or similar, with old or cheap waterproofs. Wet-suits are not needed. Boots helmets and lights are essential.

Notes

(i) The plan is to take the direct moorland route outward and the Trow Gill route inward. Ingleborough cavern (about half-way on return provides refreshments.)

(ii) There are no difficulties on the winch - just sit there! Approx. 2 minutes each way.

(iii) The grade of exploration for C party is similar to Clearwell (not the show mine) Forest of Dean. In caving terms fairly easy, with just a little dirt and no water apart from some spray in the Main Chamber.

(iv) The wait for resurfacing from Main chamber can be chilly if there is a queue - have sufficient clothing and gloves.

Sunday 28th May.

Ingleborough Cavern NGR SD 754710

One of the finest show caves in the country, linked to Gaping Gill in 1983 by the Bradford Pothole Club. Equipment, normal outdoor clothing, boots or stout shoes.

Also and/or a trip to the Anchor Inn cellars. See later in this newsletter.

Return home in the afternoon.

Accommodation

New Inn Hotel, Clapham. LA2 8HH 0524251203 Fax 05242 51496

In Settle. Halstead's B & B 0729 822823

The Oast 0729 822989 Caters for vegetarians and special diets.

Yorkshire Rose 0729 822032

In Giggleswick

The Old Station 0729 823623

In Ingleton

Moorgarth Hall 05242 41946

Public transport.

From south. Train to Leeds. Thence Settle and bus to Clapham.

From north. Train to Lancaster or Giggleswick. Thence bus to Clapham via Ingleton or Settle

Car

From Manchester. M66: A56 to A678 (beyond junc. 8 of M65): A671 to join A59 to Gisburn: A682 to Long Preston: A65 (loop road for Clapham just beyond Auswick.

From north. Leave M6 at Lancaster.

Maps

The Three Peaks OS Leisure Map. 1: 25000. Now called Yorkshire Dales (Western Area) OS Outdoor Leisure 2. 1:25000

Queries

Bill Davidson. 12 Park Avenue, Blackburn, Lancashire, BB1 8BT
01254 51523 or leave message at 581377 (sister).

THERE WILL BE ADDITIONAL OPPORTUNITIES ON 15TH AND 22ND JULY.
ENQUIRE OF BILL.

INTERNATIONAL MEETING IN MAASTRICHT, AUGUST 19TH-26TH.

You must now apply to Joep Orbons.

Holdaal 6

6228 GH

Maastricht

The Netherlands

010 314 361 8793

DOVER WEEKEND ARRANGED BY THE WEALDEN CAVE AND MINE SOCIETY. MAY 20TH-21ST

Apply to Malcolm Tadd in first instance.

THE 1995 STUDY WEEKEND - LONDON

The 1995 Study Weekend will be in central London, primarily on Friday and Saturday August 4 & 5th, assembling on Thursday evening and maybe tailing off with some public visits on Sunday morning. This shift from the weekend proper has been forced by the peculiar nature of London visits, none of which can simply be unofficially wandered into, but which have to be supervised by the owners some of whom will be operating in office hours. A further concomitant of this is that a number of sites are being charged for, which will work out about £2-3 per person per site. This is unfortunate, but hopefully the unique opportunity offered will make it worth it.

A provisional programme of a core of visits has definitely been arranged, which can be supplemented by more easily arranged fillers.

The star will undoubtedly be the Kingsway Telephone Exchange, formerly on the Defence secrets list, 100 ft. down and based on the WWII Chancery Lane Deep Shelter, extended in the early 1950s by a network of further tunnels accessed from surface blockhouses in Fournival Street, and connecting with the BT Cable Tunnel system. Revealed by the Daily Worker at the time of its construction, and featured with varying levels of accuracy by Spies for Peace, Beneath the City Streets, War Plan UK, and Bunkers under London, but having long since been unable to withstand modern H bombs and even featuring in a BBC World About Us in 1972, it is now stripped out and I believe shortly for lease.

Continuing the Kingsway theme we will also be traversing the Tram Tunnel (the only place where you can still see tram lines in London), constructed as part of the last great Metropolitan Street Improvement to underpass High Holborn and the Strand, with two subterranean tram stations. Subsequently the southern portion was converted to a traffic underpass by lowering a ramp through Aldwych station, but Holborn is relatively intact, apart from the derelict Portakabins of the defunct GLC Emergency Control Centre.

We will then retrace our steps by another route, this time deeper, in the twin tunnels of the Aldwych extension of the Piccadilly Line Tube, and the two halves of Aldwych Station itself, one recently abandoned, and one long out of use and used for every tube station you have ever seen in a TV programme or feature film.

Further possible visits would be:

The abandoned Down Street station on the Piccadilly Line, converted during WWII to secret offices for the Railway Executive which ran the railways during the War, complete with stub platform for surreptitious access from a specially stopped train.

The Post Office Railway, a narrow gauge driverless tube system carrying mailbags from Paddington to Whitechapel.

The House of Detention, a labyrinthine subterranean prison in Clerkenwell.

The Wood Street Compter, a subterranean Debtor's Prison which once housed Jonathon Wilde the Great - originator of the double cross. King Henry the Eighth's Wine Cellar, the only surviving portion of the Mediaeval Palace of Whitehall, carefully preserved under the post war Air Ministry building, now the Ministry of Defence. The Cabinet War Rooms, a reinforced basement under the Central Statistical Office, which was the nerve centre of wartime Government, containing amongst other things a scrambled Hot Line terminal (it was broken by the Germans) masquerading as a toilet cubical, and Churchill's chamber pot (which was not!). In addition it is hoped to find various underground venues for eating and drinking in the evenings!

Roger Morgan

Accommodation

Bed and breakfast Accommodation has been reserved at Imperial College for Thursday 3rd August, Friday 4th August and Saturday 5th August 1995

The cost will be approximately £24 per night depending on number of people attending.

THE NUMBER OF PEOPLE ATTENDING THE CONFERENCE WILL BE LIMITED TO 30. FIRST COME FIRST SERVED UNFORTUNATELY.

SEND NON-RETURNABLE ADMIN FEE OF £20 TO MALCOLM TADD. BUT NOTE HE IS NOT, FOR ONCE, THE ORGANISER !

It is hoped the admin. fee will cover the costs to the sites

FOR THOSE REQUIRING ACCOMMODATION A DEPOSIT OF £5 FOR EACH NIGHT REQUIRED MUST ALSO BE SENT TO MALCOLM TADD.

THE DEADLINE FOR SENDING THESE DEPOSITS IS MAY 15TH 1995.

RECEIPT OF YOUR DEPOSITS WILL BE ACKNOWLEDGED

Queries. About sites; Roger Morgan 0171 361 2097 (work)

About accommodation; MC Black Home 01920 467930 Work 0171 636 8000 X 3257

MC cannot ring you back at work. You must get to him. Leaving messages won't work!.

SUBTERRANEA BRITANNICA STUDY WEEKEND IN LONDON 1995

To Malcolm Tadd, 65 Trindles Road, South Nutfield, Redhill, Surrey. RH1 4JL

I wish to attend the annual study weekend on Thursday 3rd Aug to Saturday 5th Aug 1995

I enclose a non-refundable administration fee of £20 for the whole or part weekend.

I wish to stay in the single room accommodation at Imperial College on the night(s) of

Thursday 3rd of August for which I enclose a deposit of £5
Yes\nno

and\or Friday 4th August for which I enclose a deposit of £5
Yes\nno

and\or Saturday 5th August for which I enclose a deposit of £5
Yes\nno

I am interested in attending the dinner at the New Cavendish Club on Friday evening 4th August. (The approximate cost will be £12 excluding wine and the restaurant is underground) . Yes\nno

I understand that the admin. fee may not be enough to cover the cost of admission to all the sites and that travel between sites will be by underground train at my own expense.

Signed

Name

Address

Telephone Home
Work

Ext